

Application Serial No.: 09/618,030
Reply to Office Action dated May 7, 2003

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-5, 9-11, 13-20, and 22-23 are presently active in this case, Claims 13, 17, and 19 having been amended by way of the present Amendment. Claim 21 has been canceled by way of the present Amendment without prejudice or disclaimer.

Claims 5, 10, and 17 were indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 17 has been rewritten in independent form, and thus is in condition for allowance. Claims 11 and 23 were indicated as being allowed over the prior art.

In the outstanding Official Action, Claims 1-4, 9, 19, and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (U.S. Patent No. 4,664,619). For the reasons discussed below, the Applicant traverses the anticipatory rejection.

Claim 1 of the present application recites a nozzle for a burner comprising, among other features, a body including a first tube having a first inlet and a first outlet, and a second tube having a second inlet and a second outlet. The first tube and the second tube are separate along a substantial length of the body. The first tube includes a first linear section connected to the first inlet and a second linear section connected to the first outlet, where the second linear section is provided at a predetermined angle in relation to the first linear section. The first tube maintains a constant cross-sectional area over an entire length thereof, and the second tube maintains a constant cross-sectional area over an entire length thereof.

The Johnson et al. reference is cited for the teaching of an annulus (33) and an annulus (41), as the first and second tubes, respectively. The Applicant notes, however, that

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annulus (41) does not include an inlet, as does the second tube recited in Claim 1 of the present application. Annulus (41) is provided as a spacer between oil conduit (11) and annulus (33) in order to catch any oil that may leak from the oil conduit.

Additionally, Claim 1 recites that the first tube includes a first linear section connected to the first inlet and a second linear section connected to the first outlet, where the second linear section is provided at a predetermined angle in relation to the first linear section, and further recites that the first tube maintains a constant cross-sectional area over an entire length thereof. The Official Action cites annulus (33) for the teaching of the first tube, and presumably is citing holes (32) for the teaching of the second linear section of the first tube. However, the Applicant respectfully submits that if the holes (32) are cited as the second linear section, then it cannot be said that the first tube (which, in the Official Action includes annulus (33) and one of the holes (32)) maintains a constant cross-sectional area over an entire length thereof, since the holes (32) are clearly much smaller in cross-sectional area than annulus (33).

Accordingly, the Applicant respectfully submits that the Johnson et al. reference does not disclose all of the limitations recited in Claim 1 of the present application. Accordingly, the Applicant requests the withdrawal of the anticipation rejection of Claim 1 based upon the Johnson et al. reference.

Claim 19 of the present application recites a nozzle for a burner comprising a body having a first end adapted to attach to the burner and a second end. The body has a plurality of separate tubes extending therethrough, and the plurality of separate tubes each have an inlet hole on the first end and an outlet hole on the second end. All of the plurality of separate tubes in the body extend along a common plane in a non-coaxial orientation.

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As noted above, the annulus (41) does not include an inlet. Additionally, the annulus (33) and the annulus (41) are provided in a coaxial orientation, which is contrary to the language of amended Claim 19 that recites that all of the plurality of separate tubes in the body extends along a common plane in a non-coaxial orientation. Accordingly, the Applicant respectfully submits that the Johnson et al. reference does not disclose all of the limitations recited in Claim 19 of the present application. Accordingly, the Applicant requests the withdrawal of the anticipation rejection of Claim 19 based upon the Johnson et al. reference.

Claims 1-4 and 9 were rejected under 35 U.S.C. 102(b) as being anticipated by Singh (U.S. Patent No. 5,174,744). For the reasons discussed below, the Applicant traverses the anticipatory rejection.

The Singh reference describes an industrial burner with low NO_x and CO emissions. The burner includes a box-like housing (11) with an elongated cast iron burner nozzle (13) disposed within the housing (11). Natural gas or other fuel under pressure is supplied under pressure through the line (14) to a fuel chamber (17) in the nozzle (13). Fuel from the chamber (17) is discharged to the forward face of the nozzle by means of upper and lower rows of laterally spaced fuel passages (18, 19).

The Official Action cites fuel chamber (17) as the first linear section of the first tube in Claim 1 and fuel passage (18) as the second linear section of the first tube. The Applicant notes, however, that Claim 1 expressly recites that the first tube maintains a constant cross-sectional area over an entire length thereof. Firstly, the Applicant notes that fuel chamber (17), as depicted in Figure 2, narrows over its entire length towards the outlet thereof. Secondly, the fuel passage (18) has a substantially smaller cross-sectional area than fuel chamber (17). Accordingly, the Applicant respectfully submits that the Singh reference does

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not disclose all of the limitations recited in Claim 1 of the present application. Accordingly, the Applicant requests the withdrawal of the anticipation rejection of Claim 1 based upon the Singh reference.

Claims 13-16, 18, and 19-22 were rejected under 35 U.S.C. 102(b) as being anticipated by Marantz (U.S. Patent No. 5,019,686). For the reasons discussed below, the Applicant traverses the anticipatory rejection.

Claim 13 of the present application recites a nozzle for a burner comprising a body having a first end adapted to attach to the burner and a second end. The first end has a plurality of inlet holes and the second end has a plurality of outlet holes, where each inlet hole is connected to a single outlet hole by a separate tube. All of the separate tubes in the body extend along a common plane in a non-coaxial orientation.

The Official Action cites feedstock supply tube (22), annular fuel passage (32) and annular oxidant passage (40) in the Marantz reference for the teaching of the separate tubes recited in Claims 13 and 19 of the present application. The Applicant notes that the feedstock supply tube (22), the annular fuel passage (32) and the annular oxidant passage (40) are provided in a coaxial orientation, which is contrary to the language of amended Claims 13 and 19 that recite that all of the plurality of separate tubes in the body extends along a common plane in a non-coaxial orientation. Accordingly, the Applicant respectfully submits that the Marantz reference does not disclose all of the limitations recited in Claims 13 and 19 of the present application. Accordingly, the Applicant requests the withdrawal of the anticipation rejections of Claims 13 and 19 based upon the Marantz reference.

Dependent Claims 2-4, 9, 14-16, 18, 20, and 22 are considered allowable for the reasons advanced for the independent claims from which they depend. These claims are

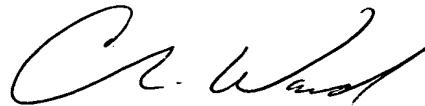
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further considered allowable as they recite other features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of their respective independent claim.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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